

August 5, 2025

Jeanne Boatwright
Boatwright Engineering, Inc.
2613 12th Street SE
Salem, OR 97301

Sent by email only.

**Re: PR# 109-2024 – Residual Maintenance Chlorination (Job #24-04)
Grand Ronde Community Water Association (PWS ID# 00338)
Conditional Approval**


Dear Ms. Boatwright,

On July 9, 2025, I received plans and specifications (mailed to our office on July 2nd) for installing sodium hypochlorite for residual maintenance to address persistent total coliform positive samples in the distribution system at the Grand Ronde Community Water Association (Public Water System ID# 00338). A check covering the plan review fee of \$825 for residual disinfection and land use approval information was also mailed on July 2nd with several subsequent emailed updates on the land use approval in progress. This project is assigned plan review ID #109-2024 (<https://yourwater.oregon.gov/planreview.php?pwsno=00338>).

The submitted plans are approved for construction provided the following conditions are met:

- 1) ☐ Land use approval for the new treatment building is obtained.
- 2) ☐ Non-conductive PVC piping is installed with No. 18 AWG (min) blue tracer wire.
- 3) ☐ Sample taps are provided to be able to measure the raw water from each source, prior to treatment for annual assessment sampling (required for systems using sodium hypochlorite for maintaining a residual disinfectant in the distribution system).
- 4) ☐ A sample tap is provided after treatment and at or prior to the first point of consumption for measuring the disinfectant residual entering the distribution system.
- 5) ☐ Salt used in making up the brine solution for the OSEC on-site generated sodium hypochlorite meets NSF Standard 60.
- 6) ☐ New facilities are disinfected and tested to demonstrate adequate disinfection, and that the system maintains a residual disinfectant throughout the distribution system. Please ensure the free chlorine residual is measured using a DPD test kit and the results are recorded on the lab reporting forms at the time coliform samples are taken (At least twice weekly chlorine residual measurements from distribution is required).

Until documentation showing how these conditions have been met, and Final Approval has been granted, the chlorination system is not approved for use.

To close out this project and request final approval, please fill out the Project Final Approval  [request form](#) and email it me at evan.e.hofeld@oha.oregon.gov along with any supplemental documentation showing how the above conditions have been met (be sure to reference Plan Review #109-2024 and public water system (PWS) ID #00338).

The remainder of this letter includes schematics and a description of the proposed disinfection system.

Thank you for your cooperation and patience in this plan review process and if you have any questions, please feel free to call me at 971-200-0288 or email me at evan.e.hofeld@oha.oregon.gov.

Sincerely,



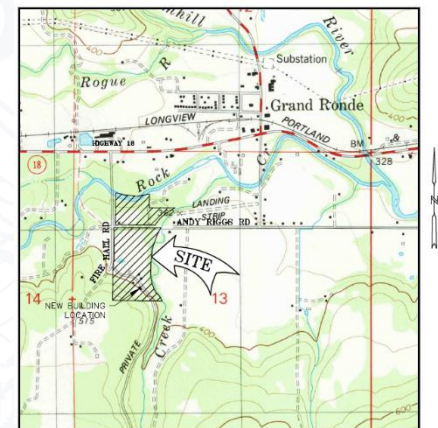
Evan Hofeld, Regional Engineer
OHA-Drinking Water Services

CC: Corbey Boatwright, Boatwright Engineering, corbey@boatwrightengr.com
Karl Ekstrom, Grand Ronde, grandrondewater@gmail.com
Christina Tisdell, Polk County Community Development, tisdell.christina@co.polk.or.us

Water treatment system project description

Raw water flows through an existing 6" PVC water main through a new flowmeter before a new tee is added to allow raw water to be drawn from the existing 6" PVC water main through a new 2" schedule 80 PVC line (with flow sensor) to serve as carry water for the sodium hypochlorite system. A raw water sample line is diverted from this 2" line to a sink inside a new 12' x 24' treatment building for sampling raw untreated water.

The 2" carry water line is reduced to 1" as it enters the treatment building where it goes to a water softener (55-gallon brine tank) and an Evoqua OSEC L on-site sodium hypochlorite generator with a 300-gallon sodium hypochlorite tank from which chlorine is pumped back into the 1" carry water line using two (redundant) chlorine injection pumps (Blue-White M2 FLEXFLOW peristaltic metering pump model #CFPS-2MAAVB-QPBBXTDP). Chlorinated water then goes back to the 4" DIP main via the 1" schedule 80 PVC carry water line.



Treated water is then pulled from the 4" DIP via a 4" DIP line to supply two distribution system pumps (Grundfos submersible model #45S18-28D). Prior to the pumps, a treated water sample line diverts treated water from the 4" DIP pump supply line to a sink inside the treatment building for sampling treated water. Treated water from the 4" DIP is then pumped to three 120-gallon pressure tanks and a 2" Schedule 80 PVC pipe that runs out to Fire Hall Rd where it tees into an existing 2" PVC line in which the treated water flows north where it tees into the existing 6" waterline before flowing north to the rest of the system.

